IN THE CLAIMS:

Claims 1-10 are pending in the application.

Please amend the claims as follows:

1. (Currently Amended) Apparatus for electrochemically etching grooves in a surface of a conical bearing and a grooved journal bearing to be utilized in a fluid dynamic bearing, the apparatus comprising

a frame for holding the cone in place about an axis and facing an electrode, movable along that axis, the electrode being axially movable and having separate surfaces carrying separate conical and journal groove patterns;

a source of electrolyte to be pumped through a gap between the surface of the electrode and the inner surface of the cone at a standard flow rate; and

a mass flow measurement device for measuring the amount of electrolyte flowing through the gap, and a source of power to provide a voltage to each of the separate surfaces to individually control the rate of groove formation in each of the journal and conical bearings.

2. (Original) A device as claimed in claim 1 wherein the electrode comprises first and second elements separately supporting the patterns for the journal and conical bearing.

3. (Original) A device as claimed in claim 1 wherein the conical electrode supports a plurality of groove patterns on an outer surface thereof, the plurality of groove patterns being used to form a plurality of groove patterns on the inner surface of the cone.

4. (Original) A device as claimed in claim 3 wherein the conical work piece is joined to a shaft, extending from a narrow end of the work piece and wherein the electrode includes a journal section extending from an end of the conical electrode and cooperating with the shaft section of the work piece, the journal electrode supporting a groove pattern to be formed on an interior surface of the journal work piece.

5. (Original) A device as claimed in claim 1 wherein the work piece comprises a pair of cones whose narrow ends are joined by a shaft, and wherein the device comprises a pair of electrodes movable relative to the cones toward and away from each other along a common axis which extends through a center of the work piece.

6. (Original) A device as claimed in claim 5 wherein the frame supports an element for moving the electrodes toward and away from each other, the electrode moving device being ganged together so that the electrodes move actually toward and away from each other in unison.

7. (Original) A device as claimed in claim 1 further comprising a source of electrical potential to be applied to t he work piece and the electrode, respectively.

8. (Original) A device as claimed in claim 7 wherein the device further includes a control for controlling the duration and level of current applied to the work piece and cathode.

9. (Currently Amended) Apparatus for electrochemically etching grooves in a surface of a work piece comprising a conical and a journal bearing, the apparatus comprising:

means for fixedly supporting the work piece in the apparatus; and

means for locating separate electrodes bearing groove patterns to be etched in the work piece a fixed distance across a gap from the conical surface and journal surface of the work piece.

10. (Currently Amended) Apparatus as claimed in claim 9 further comprising:

means for supplying electrolyte to the gap and for setting the gap.

Please add the following new claims:

11. (New) Apparatus as claimed in claim 9, wherein the means for locating the electrodes also supports the conical work piece.

12. (New) Apparatus as claimed in claim 9, wherein the conical work piece is joined to a shaft extending from a narrow end of the work piece, thereby forming a journal work piece.

13. (New) Apparatus as claimed in claim 9, wherein the work piece comprises a pair of cones having narrow ends joined by a shaft, and wherein the apparatus further comprises a pair of separate electrodes movable relative to the cones toward and away from each other along a common axis which extends through a center of the work piece.

14. (New) Apparatus as claimed in claim 13, wherein the means for fixedly supporting the work piece comprises an electrode-moving device which has an element for moving the pair of separate electrodes toward and away from each other, the electrode-moving device being ganged together so that the pair of separate electrodes move axially toward and away from each other in unison.

15. (New) Apparatus as claimed in claim 11, wherein the apparatus further comprises:

a control for controlling the duration and level of current applied to the work piece and electrode.